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NAVAL PREPAREDNESS.

BY REAR ADMIRAL BRADLEY A. FISKE, U. S. N.

In the preceding number of the Review the present writer endeavored to show why it is that the necessities of the naval defense of a country have caused the gradual development of different types of vessels, each having its distinctive work. If those different types operated in separate localities they would lose that mutual support which it is the aim of organization to secure, and each separate group could be destroyed in turn by the combined groups of an enemy. For this reason, the types or groups are combined in one large fleet, and an admiral is placed in command.

The command of a fleet is the highest effort of the naval art. Its success in time of war demands in the admiral himself a high order of mind and nerve and body; and it demands in all the personnel, from the highest to the lowest, such a measure of trained ability and character that each shall be able to discharge with skill and courage the duties of his station.

In order that the material fleet shall be efficient as a whole, each material unit must be efficient as a unit. Each ship must be materially sound; each pump, valve, cylinder, gun, carriage, torpedo, and individual appliance, no matter how small, must be in condition to perform its expected task. The complexity of a fleet baffles any mental effort, by even those most familiar with it, to grasp it fully. Each dreadnought, battle cruiser, destroyer, submarine, collier, tender, hospital ship, scout supply ship, and what not, is a machine in itself, and is filled with scores—in some cases, hundreds—of highly specialized machines, operated by steam, oil, air, electricity and water. A super-dreadnought is a machine which, including the machines inside of her, costs fifteen million dollars.

The personnel is nearly as complicated as the material. Not only are there all the various ranks of commissioned officers in the line, medical corps, pay corps, marine corps, etc., but there are ten kinds of warrant officers besides; while in the enlisted personnel there are ninety-one different " ratings " in the navy, and thirteen in the marine corps, besides temporary ratings, such as gun pointer, gun trainer, gun captain, etc. Each rank and rating carries its rigidly prescribed duties, as well as its distinctive uniform and pay. That such a multitudinous host of types and individuals, both material and personnel, can be actually incarnated in one unit fleet, and that fleet operated as a mobile directible organism by its Admiral, is a high achievement of the human intellect.

How is it done?

By discipline, by training, by knowledge, by energy, by devotion, by will; by the exercise of those mental, moral and spiritual faculties that may be grouped under the one term " mind ": the same power that co-ordinates and controls a still more complex machine, the organism of the human body.

Despite its relative crudeness, a fleet possesses, more fully than any other fruit of man's endeavor, the characteristics of an organism, defined by Webster as " an individual constituted to carry on the activities of life by means of parts or organs more or less separate in function, but mutually dependent." And though it must be true that no fleet can approximate the perfection of nature's organisms, nevertheless there is an analogy which may help us to see how a complex fleet of complex vessels has been slowly evolved from the simple galley fleets of earlier days; how its various parts may be mutually dependent yet severally independent; and how all must be made to work as one vast unit, and directed as one vast unit by the controlling mind towards " the end in view."

The common idea is that an army consists of a number of soldiers, and a navy of a number of ships. This idea is due to a failure to realize that soldiers and ships are merely instruments, and that they are useless instruments unless directed by a trained intelligence; that the first essential in an army and the first essential in a navy is mind, which first correctly estimates the situation, then makes wise plans to meet it, then carries out those plans.

Mind, when specially directed toward a given task, acts as a trained intelligence. This trained intelligence organizes the men and designs the ships, and then directs the physical power exertable by the men and the ships towards "the end in view." From this standpoint, armies and navies do not differ from each other, except in the fact that armies use men and instruments fitted for warfare on the land, while navies use men and instruments fitted for warfare on the sea.

Due to the enormous mechanical power made available in ships by the floating properties of water, machinery is more used by navies than by armies; but this does not mean that machinery can take the place of men more successfully in navies than in armies, except in the sense that navies can use more mechanical power. The abundant use of machines and instruments in navies does not mean that machinery and instruments can take the place of trained intelligence,—but exactly the reverse. Under the guidance of trained intelligence, a machine or instrument can perform wonders. But it is not the machinery that does the wonders: it is the trained intelligence that devised the instrument or machine, and the trained intelligence that operates it. Let the trained intelligence err, or sleep, and note the results that follow. The *Titanic,* a mass of 40,000 tons, moving through the water at 20 knots an hour, a marvel of the science and skill of man, crashes into an iceberg, because the trained intelligence directing her errs—and is reduced at once to an inert mass of iron and brass. The mighty fleet of Russia meets the Japanese fleet in Tsushima Straits; and because the trained intelligence that directed its movements seriously erred, in an engagement decided in less than an hour, is stripped of its power and glory, and transformed into a disorganized aggregation of separate ships—some sunk, some sinking, some in flight. The Japanese fleet, on the other hand, because it is directed with an intelligence more highly trained than that which directs the Russian fleet, and because, in consequence, the officers and enlisted men perform their various duties not only in the actual battle, but in preparation for it, with a skill greater than that used in the Russian fleet, suffers but little damage in the fight—though the advantage in number and size of ships is slightly with the Russians. As a consequence of that battle, the war between Russia and Japan was decided in favor of Japan, and terms of peace were soon agreed upon. Russia lost practically all the ships that took part in the battle, and several thousand of their officers and sailors—and *she lost the whole object for which she went to war.*

The difference between the Russian and Japanese fleets that gave the victory to the Japanese was a difference in trained intelligence and in the relative degrees of preparedness which that difference caused.

During the actual battle, the intelligence was that of the officers and men in the respective fleets, in managing the two fleets, the ships themselves, and the guns, engines and machines of all kinds that those ships contained. It is this factor—trained intelligence—that has decided most of the battles of history, and the course that nations thereafter followed. Battles have usually been fought between forces not very different in point of numbers and material, for the reason that a force obviously weaker than another would not fight unless compelled to fight; and in cases where two forces of widely differing strength have fought, the situation has usually been brought about directly by a superior intelligence. In fact, one of the most frequent and important endeavors of strategy and tactics—used triumphantly by Napoleon—has always been such a handling of one's forces as to be superior to the enemy at the point of contact—to " get the mostest men there the firstest," as General Forrest is said to have expressed it.

The effect of superior trained intelligence is greatest " at the top," but it can accomplish little unless a fine intelligence permeates the whole. A fine intelligence at the top will so direct the men below, will so select men for the various posts, and will so co-ordinate their efforts, that the organization will resemble a veritable organism: all the various organs fulfiling separately yet accurately their allotted functions; all the fire-control parties, all the gun crews, all the torpedo crews, all the engineer forces properly organized and drilled; all the hulls of the vessels, all the guns, all the torpedoes, all the multifarious engines, machines and instruments in good material condition, and correctly adjusted for use.

But it is not only in the actual battle that fine intelligence is required: it is required long before the battle and far distant from the scene,—in the " Admiralty " at home. The Japanese fleet set out fully manned with a highly trained, enthusiastic and confident personnel; the Russian fleet set out manned with a poorly trained and discouraged personnel, only too well-aware of their defects. The issue at Tsushima was decided before the respective fleets left their respective homes,—though that issue was not then known to mortals. The battle emphasized, but did not prove, what had been proved a hundred times before: the paramount importance of preparedness: that *when two forces fight—the actual battle merely secures the decision as to the relative values of two completed machines, and their degrees of preparedness for use.*

Preparedness of material is not, of course, so important as preparedness of personnel, because if the personnel is prepared, they will inevitably prepare the material. And the preparedness must pervade all grades: for while it is true that the preparedness of those in high command is more important than the preparedness of those in minor posts, yet there is no post so lowly that its good or its ill performance will not be a factor in the net result. An unskilful oiler may cause a hot bearing that will slow down a battleship, and put out of order the column of a squadron; a signalman's mistake may throw a fleet into confusion.

Perfect preparedness of personnel and material is essential because events follow each other so rapidly in war that no preparation can be made after it has begun. To fight is the most intense work a man can do; and a war is nothing but a fight. No matter how great or how small a war may be, no war can lose the essential qualities of a fight, or be more brutal or less brutal when fought between two little savage tribes, than when fought between two colossal groups of Christian nations, civilized to the highest point. War is the acme of the endeavor of man. Each side determines that it will win at all costs and at all hazards; that nobody's comfort, happiness or safety shall receive the slightest consideration; that everybody's strength and courage must be worked to the limit by night as well as by day, and that there must be no rest and no yielding to any softening influence whatever: that the whole strength and mind of the nation, and of every individual in it, must be devoted, and must be sacrificed if need be, to the cause at stake.

In war, a navy's primary duty has usually been to protect the coast and trade routes of its country; and in order to do this, it has had to be able to oppose to an attacking fleet a defending fleet more militarily effective. If it were less effective, even if no invasion were attempted, the attacking fleet could cripple or destroy the defending fleet and then institute a blockade. In modern times an effective blockade, or at least a hostile patrol of trade routes, could be held hundreds of miles from the coast, where the menace of submarines would be negligible; and this blockade would stop practically all import and export trade. This would compel the country to live exclusively on its own resources, and renounce intercourse with the outside world. Some countries could exist a long time under these conditions. But they would exist merely, and the condition of mere existence would never end until they sued for peace; because, even if new warships were constructed with which to beat off the enemy, each new and untrained ship would be sunk or captured shortly after putting out to sea as, on June 1, 1813, in Massachusetts Bay, the American frigate *Chesapeake* was captured and nearly half her crew were killed and wounded in fifteen minutes by a ship almost identical in the material qualities of size and armament: the better trained British frigate *Shannon.*

For these reasons, every nation that has acquired and has long retained prosperity, has realized that every country liable to be attacked by any navy must either be defended by some powerful country, or else must keep a navy ready to repel the attack successfully. To do this, the defending navy must be ready when the attack comes; because if not ready then, it will never have time to get ready. In regard to our own country, much stress is laid by some intelligent people—who forget the *Chesapeake* and *Shannon*—on the three thousand miles of water stretching between the United States and Europe. This three thousand miles is of course a factor of importance, but it is not a prohibition, because it can be traversed with great surety and quickness—with much greater surety and quickness, for instance, than the 12,000 miles traversed by the Russian fleet, eleven years ago, in steaming from Russia to Japan.

The three thousand miles that separate the United States from Europe can be traversed by a fleet more powerful than ours in from two to three weeks; and the fleet would probably arrive on our shores in good condition, and manned by full crews of well trained officers and men, habituated to their duties by recent practice and thoroughly ready to fight, as the *Shannon* was. We could not meet this fleet successfully unless we met it with a fleet more militarily effective; and we could not do this unless we had in the regular service and the reserve a personnel of officers and men sufficiently numerous to man immediately all the vessels that would be needed, and to man in addition all the shore stations, which would have to be expanded to a war basis. The officers and enlisted men of course would have to be at least as well trained as the corresponding personnel in the attacking fleet, and have as recent and thorough practice in their respective duties; for otherwise, no matter how brave and devoted they might be, the fate of the American fleet would be the fate of the *Chesapeake.*

In order to be ready when war breaks, the first essential is a plan for preparation. Preparation is divided naturally into two parts: first, preparation of sufficient material and personnel; second, preparation of plans for the conduct of the war after it has begun. These two parts are both considered in what are technically called " War Plans."

Preparation for war has always been known to be essential. Lack of preparation has never been due to lack of knowledge, but always to neglect. The difference between the wise and the foolish virgins was not a difference in knowledge but a difference in character. The difference betweeen Alexander's little army and the tremendous army of Darius was not so much in numbers as in preparedness. Trained under Philip of Macedon for many years, organized for conquest and aggression, prepared to meet any situation that might arise, Philip's army carried Philip's son from victory to victory, and made him the master of the world. Caesar was great in peace as well as war, but it was by Caesar's army that Caesar's greatness was established; and it was a thoroughness of preparation unknown before that made Caesar's army great. Napoleon's successes were built on the splendid preparation of a mind transcendently fitted to grasp both principles and details and on the comparatively unprepared state of his opponents.

The Great Elector began in 1640 a course of laborious and scientific preparation which committed all Prussia, as well as the army, to acquiring what now we call " efficiency." As this plan developed, especially under the Elector's grandson King Frederick William, the next king found himself, as Alexander had done, the chief of an army more highly prepared for war than any other. By means of that army he made himself Frederick the Great, and raised Prussia from a minor position to the first rank of European Powers. Pursuing Frederick William's system of progressive preparation, Prussia continued her prosperous course till William I defeated Austria, then France, and founded the German Empire. This does not mean that the only result of developing national efficiency to its highest point is to secure success in war—in fact, we know that it is not. But it does mean that the same quality—efficiency—which tends to prosperity in peace tends also to victory in war.

Preparing for war was a simple thing in the olden days, compared with preparing now, for the reason that the implements of war are much more numerous and complicated than they used to be, especially in navies. A navy is not ready unless all preparations and plans have been made, tested, and kept up to date, to ensure that all of the vessels of every kind and all the shore stations will be in material condition, fully equipped and manned by a sufficient and efficient personnel of officers and crews, in time to meet the enemy on advantageous terms, and unless the central authority has already decided what it will do, when any probable emergency shall arise. This was the condition of the German army in 1870. This was also the condition of the British Navy, when war broke out in August, 1914; the British Navy was ready; and therefore it was able to assume command of the sea at once, drive its enemy's commerce from the ocean, and imprison its fleets in sheltered ports.

In all countries the peace establishment of the army and navy is smaller than the war establishment, for reasons of economy, upon the assumption that there will be enough time after war is declared to get on a war basis before the enemy can strike. But since 1870, all the military nations have realized that the vital struggle of a war takes place *before* a shot is fired; that *the factors that decide which nation shall be the victor and which the vanquished, are determined before the war begins;* that they are simply " functions " of preparedness. Germany was ready not only for war but for victory, because she had sufficient troops, regular and reserve, enlisted, organized, equipped and highly trained; and because Von Moltke and the General Staff had pursued careful studies of all probable situations during the thirteen years preceding, and had reached well digested general decisions as to what to do in almost any situation that might arise.

The relative conditions in which two opposing forces will enter a war, and their relative performances afterwards, will depend upon the relative excellence of the war plans made for them and the thoroughness with which the plans are tested before war breaks. So it is not difficult to see why all the great armies have patterned after Germany, and organized special bodies of officers for the preparation and execution of war plans; and why it is that they endeavor to secure for that peculiar duty the most thorough and industrious of their officers. Due to the nature of war itself, the principles of warfare apply in their essentials to navies as well as to armies; and so the navies have patterned after the armies and made plans whereby they can get ready to fight in fleet organization on the ocean with the greatest possible effectiveness in the shortest possible time.

During peace times every navy is maintained on a " peace basis "; only such ships and other material being kept in full commission, and only such a number of officers and enlisted men being actively employed, as the appropriations allotted by the Government permit. Those ships and other material that are not actually in commission are maintained in reserve, a condition of partial readiness, of which several degrees are recognized, in which a reduced number of officers and men are kept on board, and the various structures and apparatus are kept in as high a degree of readiness as circumstances will permit. In order to man in time of war these vessels in reserve, and ensure a sufficient personnel in the active fleet, a " Naval Reserve " is organized in each country, composed of officers and men who have had experience in the regular navy. They are compelled to undergo a specific amount of training each year, to keep themselves in readiness at all times to answer the call for active service on short notice, and to maintain such communication with the Government as will make it easy to locate any man at any moment.

The act of getting ready, the passing from a state of peace to a state of readiness for fighting, is called " mobilization." Mobilization plans are an important element in war plans, but the details of any mobilization plan are of such a confidential nature that it would not be proper to discuss them in public print. There can be no impropriety, however, in making the general statement that in all navies the endeavor is made to keep the mobilization plans continually up to date, and to have them prepared in such detail that every officer and enlisted man in active service, the retired list, the Naval

Reserve, and the Naval Militia, will become instantly available for a pre-determined duty, and that every shore station and every necessary vessel will be ready to take part. The plans prescribe methods in very great detail whereby the ships and other vessels in reserve can be quickly put into commisssion with full crews of officers and men, all their various equipments, fuel and ammunition put on board, and the vessels themselves sent out to sea to join the fleet. In addition, plans are made whereby certain auxiliaries can be fitted out at once and put into commission,—such as supply ships, ammunition ships, transports, colliers, mine ships, hospital ships, etc. The mass of detailed plans, orders, and instructions is stupendous and bewildering. Years of study, trial, and rectification are required to get them into such condition that the plans can be put into immediate and effective use when war breaks. The work must be done, however, and with the utmost thoroughness, *before* war breaks; otherwise it will never be done, if an active enemy is about, because he will strike at once—and then it will be too late.

In most of the great naval countries the work of mobilizing the fleet is comparatively easy, for the reason that the coast line is short and is not far from any part of the interior, enabling reserves to live in fairly close touch with the coast and with naval affairs, and so near the coast that they can get quickly to any port. But the conditions in the United States are more difficult than those in any other country, because of the enormous stretch of our coast, the great average distance from any place in our country to the coast, the difficulty of getting a Naval Reserve that could be of practical use (due to the ease with which young men can make a comfortable living on the land), and the perilous slowness of the nation as a whole to realize the necessity for preparedness.

As an offset to this, we have the 3,000 miles of ocean between us and Europe, and the 5,000 miles between us and Asia; and on account of this we may to a certain extent discount the danger of attack and the preparedness required to meet it. But our discount should be reasonable and reasoned out, and certainly not excessive. Fortunately the problem of how much time we should allow for mobilizing and joining the fleet is easy, as a moment's thought will show us that it must be simply the two weeks needed for a fleet to come from Europe to America; for we must realize that the report of the sailing of the hostile fleet would be the first news we should get of any hostile preparation or intent.

The general situation in which every isolated naval nation stands regarding other nations is not complicated, but very plain. Each nation has, as possible opponents in its policy, certain countries. The naval forces of those countries and the time in which they can be made ready are known with sufficient accuracy for practical purposes. If any isolated naval nation wishes to carry out a policy which any of those countries will forcibly oppose she must either build a navy equal to that of the other country, or else be prepared to abandon any attempt to force her policies. Stating the question in another way, she can carry out only such policies as do not require for their enforcement a navy stronger than she has.

It is true that diplomacy and the jealousies of foreign Powers unite to make possible the averting of war during long periods of time. Diplomacy averted war from Germany for forty-three years, but it could not continue to avert war eternally. War finally broke with a violence unparalleled in history, and possessing a magnitude proportional to the length of duration of the preceding peace. " Long coming long last, short notice soon past " is a sailor's maxim about storms; and it seems not inapplicable to wars. Certain it is that the frequent wars of savage tribes are far less terrible than the infrequent wars of enlightened Powers.

This indicates that, even though a nation may be able to avert war for a long time, war will come some day, in a form which the present war foreshadows; and it suggests the possibility that the longer the war is averted, the more tremendous it will be, the greater the relative unpreparedness of a slothful nation, and the sharper her punishment when war finally breaks upon her.

BRADLEY A. FISKE.